

## **Make an Impact at an Innovative Growing Company Specializing in Customized Wireless Harsh Environment Sensor Solutions**

If you're an Engineer who loves to learn and is motivated by new discovery, this role could be your perfect fit. Whether you're a seasoned engineer with deep hands-on design experience, or a new graduate with a strong internship under your belt, you'll leverage the breadth of your skill-set to design, fabricate and test cutting-edge wireless sensor system technology for use in harsh environments.

You'll join an intelligent and talented team of engineers and scientists and do hands-on R&D, working for government clients, such as the Department of Defense and the Department of Energy, as well as commercial clients. This is a role that will keep you interested and challenged as you work on the forefront of business and technology designing new, complex applications. You can feel good knowing that the projects you work on are changing and advancing what it is possible to measure and monitor for critical harsh environment modern applications.

We have several Engineer positions available requiring a range of experience and varied education levels from bachelors to PhD, from technical to technical management, so feel free to share this information with your qualified network.

**Environetix Technologies Corporation** is a technology-transfer spin-off from The University of Maine (UM) Laboratory for Surface Science & Technology (LASST). A dynamic R&D organization, Environetix is making rapid progress in the field of passive, wireless sensor systems for harsh environments. For instance, Environetix's sensors perform reliably up to 1000 degrees Celsius, a groundbreaking innovation in the field of wireless sensor technology. With both private customers and federal contracts in hand, Environetix is well underway in commercializing wireless sensor systems and associated wireless communication technologies for both static and dynamic harsh environment applications. In addition, Environetix is also pursuing technology advancement through research and development of new sensor types and applications.

### **The Requirements**

The role of Staff Engineer could be a great opportunity for a new graduate (BS, MS or PhD) with hands-on lab experience, and/or more established engineer with design, test, and project management experience. This job is ideal for someone with the desire and drive to continue to learn, to develop professionally, and a passion for designing and implementing new technologies.

To meet the basic requirements for the role of Staff Engineer, you will have:

- Legal authorization to work permanently in the United States for any employer
- A minimum of a bachelor's degree in Electrical Engineering, Mechanical Engineering, Physics or a related field
- The ability to pass a background check in order to work on projects for Federal contracts

To be a strong fit for the role, the following qualifications are highly beneficial:

- Mechanically inclined with experience with CAD design and modeling
- Understanding of and experience with RF design and implementation
- Knowledge and design of wireless radar and communication systems
- Experience with and understanding of most of the following technology, software and concepts:
  - Solidworks
  - AutoCAD
  - LabVIEW System Design Software
  - Network analyzers/Spectrum analyzers
  - Electronic design for wireless communication systems
  - Circuit and device architecture design
  - Signal processing
  - Microwave acoustic sensors
  - Antennas
  - Measurement techniques
- Willingness to travel to customer sites to perform installations on occasion
- An inquisitive mind with the ability to effectively communicate ideas and information
- The ability to work and thrive independently and as a member of a diverse, collaborative team

### **The Role**

As Staff Engineer, you will serve as a critical member of a talented team including other engineers with expertise in Electrical Engineering, Computer Science, Physics, and Materials Science. The team is growing and includes a Daily Operations Manager and Sales/Marketing Staff as well RF Engineers. Regardless of skill level and experience, everyone is learning all the time. You'll take ownership of a hands-on role where you'll spend a good deal of time in the lab using facilities at Environetix. Your primary focus will be the design, fabrication and testing of wireless sensors and an integrated wireless communication system for multiple applications, as well as managing project deliverables and writing the proper documentation. You will be an important member of the team, and you also must be comfortable and competent at completing most of your work independently under group supervision.

Your specific responsibilities will include:

- Performing the required fabrication, design and testing of prototype devices, sensors, antennas, and systems;
- Designing CAD models for device packaging, prototype design, and test setup integration;
- Designing fabricating, testing and optimizing surface acoustic wave sensor devices for wireless system applications to detect temperature, pressure, strain, corrosion and/or other measurands;
- Integrating acoustic wave sensors with related wireless communication systems;
- Designing, simulating, and testing antennas/RF components for wireless sensor systems;
- Developing and testing high-temperature packaging;
- Managing project schedules, milestones, and deliverables;
- Writing the proper documentation internally and for customers;

- Traveling to customer sites with the team on occasion to perform implementations/installations.

Note: this description is intended to give you a general overview of the position and is not an exhaustive listing of duties and responsibilities. Pictured: Environetix Technologies Corporation provides its customers with high quality custom wireless sensor solutions to meet the challenges of measuring high temperature, pressure, vibration and strain in harsh and extreme environments such as gas/oil extraction settings.

### **Why Join Environetix?**

**Talented team of experts** -- you'll enjoy the mentorship of a talented and experienced team of leaders, researchers and scientists. You'll work closely with our CEO, Mauricio Pereira da Cunha, Professor of Electrical & Computer Engineering, and President, Robert J. Lad, Professor of Physics. These top professionals, along with others on the team, such as our Daily Operations Manager, Ms. Suzie Sharrow, will help you continue to build your skill-set and your career.

**Interesting challenges** -- we invite our customers to tell us about their challenging or currently impossible measurement needs and set out to find a way to make those measurements routine. That means you will have the opportunity work at the leading-edge of R&D.

**A variety of customers and projects** -- we enjoy a diverse customer base including both commercial and government clients. Because of our varied and growing client base, we've built a strong and stable foundation on which our business can continue to grow. Our success does not overly rely on any one client or project. And, though we're working on the cutting-edge, we're not a start-up. We were established in 2009 and are continuing to grow.

**Outstanding training** -- while we'll expect you to come in initially with a wide breadth of knowledge, we'll train you on specifics of our technology. Since this is a new field, everyone needs a good deal of training and in turn, you'll train us on your discoveries.

**Best-of-both-worlds collegial/business environment** -- you'll enjoy a "best of both worlds" scenario where you can design commercial, "real-world" technology in a collegial, learning environment. Because what we do is new, we're always researching and learning. Ours is a collaborative atmosphere with passionate and motivated team members delivering viable commercial solutions for wireless harsh-environment sensor applications.

**Location, location, location** -- Environetix is located in Orono, Maine, in close proximity to the University of Maine. Orono is a beautiful mid-Maine college town offering a wonderful quality of life, including college sports and cultural events, outdoor activities, such as water sports on the Penobscot River, and a strong sense of community. We're also less than an hour from Acadia National Park and other recreational areas. Just 15 minutes away is Bangor, Maine where there is a thriving arts scene, with museums, galleries, theaters, a symphony orchestra and a popular sidewalk art festival every summer. You might remember Bangor as the home of Stephen King and the setting for many of his tales. Orono (pictured above) is a great place to call home.

## **Keys to Success**

To be successful in this role, you'll need to be bright and passionate to understand the measurement problem a client may be facing, and to overcome challenges and find a solution. Regardless of your level of education and experience, you must be highly intuitive and enjoy discovery. What we're doing is new, which means there's no mold to fit and no template to follow. You will help carve the path.

To thrive and excel in our environment, you'll also need to be a strong, independent worker who can collaborate effectively with a group of highly intelligent minds. If you're used to being the smartest in the room, you'll find we're all the smartest in the room! We check our egos at the door and dedicate ourselves to creating solutions as a team, each taking ownership of our assigned responsibilities. Beyond the lab work, you will demonstrate high proficiency in preparing presentations (PowerPoint), carrying out data analysis, and documenting results in company reports.

## **About Us**

Environetix was founded in 2009 as a technology-transfer spin-off from the University of Maine's Laboratory for Surface Science and Technology (LASST). From the beginning, Environetix has been developing ground-breaking harsh environment wireless sensor platforms and systems for government and industrial customers. Environetix is committed to making reliable and routine what is currently difficult or inaccessible when it comes to measuring high temperature, pressure, vibration and strain in harsh environments.

A real strength of Environetix is the strong integration of novel materials and sensor devices to achieve reliable wireless sensor systems for use in harsh environments. In addition to well-equipped facilities to address project development and deliverables to customers, Environetix benefits from access to a variety of state-of-the-art instrumentation for nanoscale analysis, nanofabrication, material testing, and environmental test chambers to allow the delivery of robust products to its customers.